

EXHIBIT #14

Attorney Docket No.: P3221US00

Patent

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	Yiming MA <i>et al.</i>	Confirmation No.:	1715
Application No.:	12/565,573	Examiner:	Kwasi KARIKARI
Filed:	September 23, 2009	Group Art Unit:	2641

For: METHOD AND APPARATUS FOR INCREMENTALLY DETERMINING
LOCATION CONTEXT

MAIL STOP AF
Commissioner for Patents
Alexandria, VA 22313-1450

RESPONSE UNDER 37 C.F.R. § 1.116

Dear Commissioner:

In response to the Final Office Action dated August 9, 2013, please reconsider the above-identified application based on the following:

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AMENDMENT AND PRESENTATION OF CLAIMS

Please replace all prior claims in the present application with the following claims.

1. (Currently Amended) A method comprising:

causing at least in part a receiving of signal data that indicates a set of one or more distinct signal sources from which signals are received at a mobile device for each of a plurality of different times;

determining whether the mobile device is moving outside a specified area at a current time of the plurality of different times based on the signal data;

if the mobile device is determined to be not moving outside the specified area, then causing at least in part an incrementing of a count for a stationary state associated with the set of one or more distinct signal sources at the current time; [[and]]

determining a primary set of stationary states, each stationary state in the primary set associated with a frequently incremented count for one or more similar sets of one or more distinct signal sources when the mobile device is not moving outside the specified area; and

causing at least in part initiation of delivery of a service to the mobile device based on the stationary state.

2. (Original) A method of claim 1, wherein determining whether the mobile device is moving outside the specified area comprises determining whether a measure of similarity, between a first set of one or more distinct signal sources in a time window ending at the current time and a second set of one or more distinct signal sources in a time window ending at a time earlier than the current time, is below a movement threshold.

3. (Original) A method of claim 1, wherein incrementing the count for the stationary state further comprises:

determining a conditional probability for each wireless transmitter of the set of wireless transmitters given an extant stationary state;

determining a conditional probability for the extant stationary state given the set of one or more distinct signal sources based on the conditional probability for each wireless transmitter of the set of wireless transmitters given the extant stationary state; and

updating a count of the extant stationary state if the conditional probability for the extant state given the set of one or more distinct signal sources is greater than a cluster threshold.

4. (Canceled)

5. (Currently Amended) A method of ~~claim 4~~, claim 1, further comprising determining a transition state associated with a change from a first stationary state to a second stationary state of the primary set of stationary states.

6. (Original) A method of claim 5, wherein the first stationary state is identical to the second secondary state.

7. (Original) A method of claim 5, wherein determining the transition state further comprises incrementing a count for the transition state, wherein the count is associated with duration in the first stationary state and a timing context when the transition state is determined.

8. (Original)) A method of claim 5, further comprising predicting the transition state based on a last stationary state before the current time and a time context for the current time and a history of occurrence of the transition state, wherein delivering the service to the mobile device based on the stationary state further comprises delivering the service based on the predicted transition state.

9. (Original) A method of claim 1, wherein delivering the service to the mobile device based on the stationary state further comprises determining a type of service based on communications by the user during the stationary state.

10. (Original) A method of claim 5, wherein delivering the service to the mobile device based on the stationary state further comprises determining a type of service based on a transition state that includes the stationary state.

11. (Original) A method of claim 5, further comprising predicting the transition state by:
determining a most probable transition state at the current time; and
determining a most probable transition state at a future time given the most probable transition state at the current time.

12. (Currently Amended) An apparatus comprising:
at least one processor; and
at least one memory including computer instructions, the at least one memory and computer instructions configured to, with the at least one processor, cause the apparatus at least to:

cause at least in part a receiving of signal data that indicates a set of one or more distinct signal sources from which signals are received at a mobile device for each of a plurality of different times;

determine whether the mobile device is moving outside a specified area at a current time of the plurality of different times based on the signal data;

if the mobile device is determined to be not moving outside the specified area, then incrementing a counter for a stationary state associated with the set of one or more distinct signal sources at the current time; [[and]]

determine a primary set of stationary states, each stationary state in the primary set associated with a frequently incremented count for one or more similar sets of one or more distinct signal sources when the mobile device is not moving outside the specified area; and

cause at least in part initiation of delivery of a service to the mobile device based on the stationary state.

13. (Original) An apparatus of claim 12, wherein determining whether the mobile device is moving outside the specified area comprises determining whether a measure of similarity, between a first set of one or more distinct signal sources in a time window ending at the current time and a second set of one or more distinct signal sources in a time window ending at a time earlier than the current time, is below a movement threshold.

14. (Original) An apparatus of claim 12, wherein incrementing the count for the stationary state further comprises:

determining a conditional probability for each wireless transmitter of the set of wireless transmitters given an extant stationary state;

determining a conditional probability for the extant stationary state given the set of one or more distinct signal sources based on the conditional probability for each wireless transmitter of the set of wireless transmitters given the extant stationary state; and

updating a count of the extant stationary state if the conditional probability for the extant state given the set of one or more distinct signal sources is greater than a cluster threshold.

15. (Canceled)

16. (Currently Amended) An apparatus of ~~claim 15~~, claim 12, the at least one memory and computer instructions further configured to, with the at least one processor, cause the apparatus at least to determine a transition state associated with a change from a first stationary state to a second stationary state of the primary set of stationary states.

17. (Original) An apparatus of claim 16, the at least one memory and computer instructions further configured to, with the at least one processor, cause the apparatus at least to predict the transition state by:

determining a most probable transition state at the current time; and

determining a most probable transition state at a future time given the most probable transition state at the current time.

18-20. (Canceled)

REMARKS

Claims 1-17 are pending in this Application, of which claims 1, 5, 12, and 16 are currently amended, and claims 4, 15, and 18-20 are canceled without prejudice or disclaimer. No claims are currently amended. No new matter is introduced.

The Final Office Action mailed August 9, 2013:

- 1) rejected claims 1, 2, 9, 12, and 13 as being obvious under 35 U.S.C. § 103(a) based on *Gummadi et. al.*, (U.S. 2008/0233945, hereinafter, *Gummadi*) in view of *Smith et al*, (U.S 2003/0006911, hereinafter, *Smith*); and
- 2) objected to claims 3-8, 10, 11, and 14-17 as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The objections and rejection are respectfully traversed.

A. 35 U.S.C. §103(a) Rejection of Claims 1, 2, 9, 12, and 13

With respect to the rejection of independent claim 1, and for at least the reasons previously argued, Applicants submit that *Gummadi* and *Smith*, taken individually or in combination, do not teach or render obvious “**signal data that indicates a set of one or more distinct signal sources from which signals are received at a mobile device for each of a plurality of different times,**” wherein a “**determining whether the mobile device is moving outside a specified area at a current time of the plurality of different times based on the signal data,**” as recited in independent claim 1. Independent claim 12 recites similar features in varying scope.

However, in an effort to expedite prosecution and to reduce issues for potential appeal, Applicants have amended independent claims 1 and 12 to recite the allowable features of now canceled claims 4 and 15, respectively.

Therefore, in summary, at least for the foregoing reasons, independent claims 1 and 12 are not rendered obvious by the combination of *Gummadi* and *Smith* and are patentable. Dependent claims 2 and 9 and 13, which variously depend from independent claims 1 and 12, also are patentable, at least in view of the patentability of independent claims 1 and 12, as well as for the additional features these claims recite. Accordingly, withdrawal of the rejections is respectfully requested.

B. Objections to Claims 3-8, 10, 11, and 14-17

Applicants greatly appreciate the Office Action's indication that the claims 3-8, 10, 11, and 14-17 are allowable. As discussed above, independent claims 1 and 12 are amended to recite the features of now canceled claims 4 and 15, respectively. Thus, all pending claims are allowable and withdrawal of the objections is respectfully requested.

C. Withdrawn Claims 18-20

As discussed above, Applicants have canceled previously withdrawn claims 18-20 without prejudice or disclaimer.

Conclusion

Therefore, the present application overcomes the objections and rejections of record and is in condition for allowance. Favorable consideration is respectfully requested. If any

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unresolved issues remain, it is respectfully requested that the Examiner telephone the undersigned attorney at (703) 519-9952 so that such issues may be resolved as expeditiously as possible.

As Applicants' remarks with respect to the Examiner's rejection and objections are sufficient to overcome these rejections, Applicants' silence as to assertions by the Examiner in the Office Action or certain requirements that may be applicable to such rejections (e.g., whether a reference constitutes prior art, ability to combine references, assertions as to patentability of dependent claims) is not a concession by Applicants that such assertions are accurate or such requirements have been met, and Applicants reserve the right to analyze and dispute such assertions in the future.

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To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 504213 and please credit any excess fees to such deposit account.

Respectfully Submitted,

DITTHAVONG MORI & STEINER, P.C.

November 12, 2013
Date

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Document Description: After Final Consideration Pilot Program Request

PTO/SB/434 (05-13)

CERTIFICATION AND REQUEST FOR CONSIDERATION UNDER THE AFTER FINAL CONSIDERATION PILOT PROGRAM 2.0		
Practitioner Docket No.: P3221US00	Application No.: 12/565,573	Filing Date: September 23, 2009
First Named Inventor: Yiming MA	Title: METHOD AND APPARATUS FOR INCREMENTALLY DETERMINING LOCATION CONTEXT	
<p>APPLICANT HEREBY CERTIFIES THE FOLLOWING AND REQUESTS CONSIDERATION UNDER THE AFTER FINAL CONSIDERATION PILOT PROGRAM 2.0 (AFCP 2.0) OF THE ACCOMPANYING RESPONSE UNDER 37 CFR 1.116.</p> <ol style="list-style-type: none"> 1. The above-identified application is (i) an original utility, plant, or design nonprovisional application filed under 35 U.S.C. 111(a) [a continuing application (<i>e.g.</i>, a continuation or divisional application) is filed under 35 U.S.C. 111(a) and is eligible under (i)], or (ii) an international application that has entered the national stage in compliance with 35 U.S.C. 371(c). 2. The above-identified application contains an outstanding final rejection. 3. Submitted herewith is a response under 37 CFR 1.116 to the outstanding final rejection. The response includes an amendment to at least one independent claim, and the amendment does not broaden the scope of the independent claim in any aspect. 4. This certification and request for consideration under AFCP 2.0 is the only AFCP 2.0 certification and request filed in response to the outstanding final rejection. 5. Applicant is willing and available to participate in any interview requested by the examiner concerning the present response. 6. This certification and request is being filed electronically using the Office's electronic filing system (EFS-Web). 7. Any fees that would be necessary consistent with current practice concerning responses after final rejection under 37 CFR 1.116, <i>e.g.</i>, extension of time fees, are being concurrently filed herewith. [There is no additional fee required to request consideration under AFCP 2.0.] 8. By filing this certification and request, applicant acknowledges the following: <ul style="list-style-type: none"> • Reissue applications and reexamination proceedings are not eligible to participate in AFCP 2.0. • The examiner will verify that the AFCP 2.0 submission is compliant, <i>i.e.</i>, that the requirements of the program have been met (see items 1 to 7 above). For compliant submissions: <ul style="list-style-type: none"> ○ The examiner will review the response under 37 CFR 1.116 to determine if additional search and/or consideration (i) is necessitated by the amendment and (ii) could be completed within the time allotted under AFCP 2.0. If additional search and/or consideration is required but cannot be completed within the allotted time, the examiner will process the submission consistent with current practice concerning responses after final rejection under 37 CFR 1.116, <i>e.g.</i>, by mailing an advisory action. ○ If the examiner determines that the amendment does not necessitate additional search and/or consideration, or if the examiner determines that additional search and/or consideration is required and could be completed within the allotted time, then the examiner will consider whether the amendment places the application in condition for allowance (after completing the additional search and/or consideration, if required). If the examiner determines that the amendment does not place the application in condition for allowance, then the examiner will contact the applicant and request an interview. <ul style="list-style-type: none"> ▪ The interview will be conducted by the examiner, and if the examiner does not have negotiation authority, a primary examiner and/or supervisory patent examiner will also participate. ▪ If the applicant declines the interview, or if the interview cannot be scheduled within ten (10) calendar days from the date that the examiner first contacts the applicant, then the examiner will proceed consistent with current practice concerning responses after final rejection under 37 CFR 1.116. 		
Signature /Lenwood Faulcon, Jr./	Date November 12, 2013	
Name (Print/Typed) Lenwood Faulcon, Jr.	Practitioner Registration No. 61310	
<p>Note: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4(d) for signature requirements and certifications. Submit multiple forms if more than one signature is required, see below*.</p>		
<p><input type="checkbox"/> * Total of _____ forms are submitted.</p>		

Privacy Act Statement

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

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3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.